

APPLICANT(S): KOROL, Victor
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AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Currently Amended) An apparatus comprising:
~~a combiner having~~ a first active component coupled to a first capacitor of a first capacitor-inductor-capacitor impedance converter; and
a second active component coupled to a first capacitor of ~~operably coupled to a~~
second capacitor-inductor-capacitor impedance converter,
wherein the first and second capacitor-inductor-capacitor impedance converters are coupled by a shared capacitor to combine first and second signals of first and second outphasing power amplifiers, inputted to the first and second active components, respectively~~[[,]] and to provide a matched output impedance to a load.~~
2. CANCELED.
3. CANCELED.
4. (Currently Amended) The apparatus of claim 1, wherein a capacitance of the first capacitor of the first capacitor-inductor-capacitor impedance converter is different from the capacitance of the first capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the first-capacitor capacitors of the first and second capacitor-inductor-capacitor impedance converters is are both different from the capacitance of the shared capacitor.
5. (Currently Amended) The apparatus of claim 1, wherein the first and second ~~outphasing power amplifiers~~ active components comprise transistors.

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6. (ORIGINAL) The apparatus of claim 5, wherein the transistors are bipolar transistors.

7. (Currently Amended) The apparatus of claim 1, ~~further comprising a filter wherein a first combination of the first active component and the first capacitor of the first capacitor-inductor-capacitor impedance converter is able to filter out a second harmonic of the first signal, and wherein a second combination of the second active component and the first capacitor of the second capacitor-inductor-capacitor impedance converter is able to filter out a second harmonic of the first and second signals~~ signal.

8. (Currently Amended) ~~An apparatus~~ A communication device comprising:
a dipole antenna operably coupled to an outphasing transmitter ~~with reactive termination having, the outphasing transmitter comprising first and second non linear power amplifiers coupled to a combiner that includes a first active component coupled to a first capacitor of a first capacitor-inductor-capacitor impedance converter operably coupled to and a second active component coupled to a first capacitor of a second capacitor-inductor-capacitor impedance converter, wherein the first and second capacitor-inductor-capacitor impedance converters are able to combine first and second signals of the first and second outphasing non linear power amplifiers, respectively[[,]] and to provide a matched output impedance to the dipole antenna.~~

9. (Currently Amended) The ~~apparatus~~ communication device of claim 8, wherein the first capacitor-inductor-capacitor impedance converter ~~comprises a first capacitor, a first inductor and a shared capacitor, and wherein~~ and the second capacitor-inductor-capacitor impedance converter ~~comprises a second capacitor, a second inductor and said~~ are coupled by a shared capacitor.

10. CANCELED

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11. (Currently Amended) The ~~apparatus~~ communication device of claim ~~[[8]]~~ 9, wherein the capacitance of the first capacitor of the first capacitor-inductor-capacitor impedance converter is different from the capacitance of the first capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the first capacitor input capacitors of the first and second capacitor-inductor-capacitor impedance converters is are both different from the capacitance of the shared capacitor.

12. (Currently Amended) The ~~apparatus~~ communication device of claim 8, wherein the first and second ~~outphasing power amplifiers~~ active components comprise transistors.

13. (Currently Amended) The ~~apparatus~~ communication device of claim 12, wherein the transistors are bipolar transistors.

14. (Currently Amended) The ~~apparatus~~ communication device of claim 8, ~~further comprising a filter~~ wherein a first combination of the first active component and the first capacitor of the first capacitor-inductor-capacitor impedance converter is able to filter out a second harmonic of the first signal, and wherein a second combination of the second active component and the input first capacitor of the second capacitor-inductor-capacitor impedance converter is able to filter out a second harmonic of the first and second signals signal.

15. (Currently Amended) A method comprising:

providing impedance matching between a combination of first and second power amplifiers and a desired load by assigning first and second capacitance values to first and second capacitors, respectively, associated with said combination; and

filtering out a second harmonic of first and second signals provided by the first and second power amplifiers, respectively.

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16. (ORIGINAL) The method of claim 15, comprising assigning different capacitance values to the first and second capacitors.

17. CANCELED

18. (Currently Amended) A wireless communication ~~system~~ device comprising:
~~a mobile station having an outphasing transmitter with reactive termination~~
~~that include~~ comprises first and second non linear power amplifiers coupled to
a combiner having a first active component coupled to a first capacitor of a
first capacitor-inductor-capacitor impedance converter operably coupled to
and a second active component coupled to a first capacitor of a second
capacitor-inductor-capacitor impedance converter, wherein the first and
second capacitor-inductor-capacitor impedance converters are able to combine
first and second signals of first and second non linear power amplifiers,
respectively[[,]]~~and to provide a matched output impedance to an antenna.~~

19. (Currently Amended) The wireless communication ~~system~~ device of claim 18,
wherein the first capacitor-inductor-capacitor impedance converter ~~comprises a first~~
~~capacitor, a first inductor and a shared capacitor, and wherein~~ and the second capacitor-
inductor-capacitor impedance converter ~~comprises a second capacitor, a second inductor and~~
~~said~~ are coupled by a shared capacitor.

20. CANCELED.

21. (Currently Amended) The wireless communication ~~system~~ device of claim ~~[[18]]~~ 19,
wherein the capacitance of the first capacitor of the first capacitor-inductor-capacitor
impedance converter is different from the capacitance of the first capacitor of the second
capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the first

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~~capacitor~~ first capacitors of the first and second capacitor-inductor-capacitor impedance converters is are both different from the capacitance of the shared capacitor.

22. (Currently Amended) The wireless communication ~~system~~ device of claim 21, wherein the first and second ~~outphasing power amplifiers~~ active components comprise transistors.

23. (Currently Amended) A wireless communication system comprising:
a base station having an outphasing transmitter ~~with reactive termination that include~~ comprises first and second nonlinear power amplifiers coupled to a combiner having a first active component coupled to a first capacitor of a first capacitor-inductor-capacitor impedance converter operably coupled to and a second active component coupled to a first capacitor of a second capacitor-inductor-capacitor impedance converter, wherein the first and second capacitor-inductor-capacitor impedance converters are able to combine first and second signals of first and second nonlinear power amplifiers, respectively[[,]] ~~and to provide a matched output impedance to an antenna.~~

24. (Currently Amended) The wireless communication system of claim 23, wherein the first capacitor-inductor-capacitor impedance converter ~~comprises a first capacitor, a first inductor and a shared capacitor, and wherein~~ and the second capacitor-inductor-capacitor impedance converter ~~comprises a second capacitor, a second inductor and said~~ are coupled by a shared capacitor.

25. CANCELED.

26. (Currently Amended) The wireless communication system of claim ~~[[23]]~~ 24, wherein the capacitance of the input capacitor of the first capacitor-inductor-capacitor impedance

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converter is different from the capacitance of the input capacitor of the second capacitor-inductor-capacitor impedance converter, and wherein the capacitance of the first capacitor input capacitors of the first and second capacitor-inductor-capacitor impedance converters is are both different from the capacitance of the shared capacitor.

27. (New) The wireless communication system of claim 23, wherein the first and second active components comprise transistors.

28. (New) The wireless communication system of claim 23, wherein a first combination of the first active component and the first capacitor of the first capacitor-inductor-capacitor impedance converter is able to filter out a second harmonic of the first signal, and wherein a second combination of the second active component and the first capacitor of the second capacitor-inductor-capacitor impedance converter is able to filter out a second harmonic of the second signal.

29. (New) The wireless communication system of claim 23, wherein the outphasing transmitter comprises:

an impedance transformer to provide a direct current (DC) voltage to the first and second active components.

30. (New) The wireless communication system of claim 23, wherein the first active component is able to set a positive capacitance to the first capacitor of the first capacitor-inductor-capacitor impedance converter, and wherein the second active component is able to set a negative capacitance to the first capacitor of the second capacitor-inductor-capacitor impedance converter.

31. (New) The communication device of claim 8, wherein the outphasing transmitter comprises:

an impedance transformer to provide a direct current (DC) voltage to the first and second active components.

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32. (New) The communication device of claim 8, wherein the first active component is able to set a positive capacitance to the first capacitor of the first capacitor-inductor-capacitor impedance converter, and wherein the second active component is able to set a negative capacitance to the first capacitor of the second capacitor-inductor-capacitor impedance converter.

33. (New) The method of claim 15, comprising:
 setting a positive capacitance to the first capacitor; and
 setting a negative capacitance to the second capacitor.

34. (New) The wireless communication system of claim 18, wherein the outphasing transmitter comprises:
an impedance transformer to provide a direct current (DC) voltage to the first and second active components.

35. (New) The wireless communication system of claim 18, wherein the first active component is able to set a positive capacitance to the first capacitor of the first capacitor-inductor-capacitor impedance converter, and wherein the second active component is able to set a negative capacitance to the first capacitor of the second capacitor-inductor-capacitor impedance converter.